



UTB Systems Center *Newsletter*

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The UTB Systems Center Newsletter is an authorized publication of news and information concerning the UTB community. Editorial content is unofficial and not for authority or action. The views and opinions expressed herein are not necessarily those of the Department of Transportation or the United States Coast Guard. BMCS Rick Thornton and MKC Terry Trexler, Editors.

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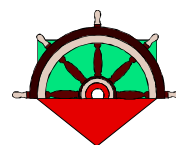
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FROM THE PILOTHOUSE

By LT John Homan
Chief, UTB Systems Center



As summer approaches, I'm sure many of you are busy preparing crews and boats for the hectic season that lies ahead. This may be an appropriate time to discuss the current status of boat crew professionalism within the Coast Guard.

Based on UTB STANTEAM readiness assessments, we know that the competency level of most boat crews is excellent. The boat crew training, readiness, and standardization programs in use today provide comprehensive training for Coast Guard boat crews, and unit and operational commanders. The level of boat crew professionalism in the Coast Guard has never been higher. I first certified as a boat coxswain in 1978 using the old CG-313. The CG-313 was probably 1/4 inch thick with few coxswain tasks (as compared to today's qualification guide). My peers and I didn't realize it at the time, but we missed quite a bit of professional training and many of us relied on trial and error to gain our experience. Truly, we have come a long way.

But keep in mind that these training programs are only as good as the effort put forth by our people. The old saying "garbage in - garbage out" applies to the training of our boat crews. If our mentors and trainees minimally cover training tasks, the level of professionalism will also be minimal. Our training must be complete. Along with practical maritime skills, we must provide our boat crews with risk assessment skills and make it clear that it is expected that crews take an active role in the risk assessment process. It is most important that we stress this issue with the very junior people. They must feel comfortable stepping up and making a difference at a very junior stage in their career. Sometimes, as we've learned through our study of mishaps, coxswains don't see the entire picture.

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As you all probably know by now, the UTB Systems Center reviews all UTB mishaps. Our review involves contacting the reporting unit for amplifying information concerning the mishap. As a testament to the high level of professionalism in today's boat community, we have never been met with anything but open minds and a free flow of information. This is proof, in my mind, that our boat community desires to learn from mistakes, and stations are no longer shy about sharing these lessons learned. Our Coast Guard boat community is shedding the stigma that previously went along with reporting mishaps.

Based on my review of recent UTB mishaps, I'd like to share my thoughts on methods to prevent future mishaps.

1. There are times when lookouts simply cannot process sight and sound quickly enough under existing circumstances. Lookouts must advise coxswains of any situation that hinders their performance. Sometimes, a quick warning from the crewmember (i.e. "we're going too fast for me to locate the dayboards") is sufficient to prompt the coxswain to decrease speed and, thus, avoid disaster or an embarrassing grounding. Several recent UTB groundings might have been avoided had the crew spoken up. See my comments above about getting junior crewmembers involved in the risk assessment process.
2. Boat coxswains must understand that, like cutter COs and aircraft commanders, they have the latitude to alter operational plans when on scene conditions dictate a change. The coxswain is inescapably responsible for the safety of his/her vessel and crew. During operations, coxswains should communicate comfortably and freely with cutters and aircraft. I have never worked with a cutter CO or aircraft commander who didn't do everything possible to accommodate the needs of the boat crew.

If a boat crew has had minimal exposure to flight operations, the coxswain must ask the pilot to take it slower than usual. If a boat needs a better lee before approaching a cutter for a personnel transfer, the coxswain must request the cutter to provide a better lee. The key here is open communications.

3. Several recent UTB mishaps (minor collisions) involved allowing inexperienced trainees to remain at the controls in situations that clearly exceeded their abilities. In both incidents, the instructor waited too long to intervene. During one of the incidents, a crewmember lost his fingertip as a result of the collision. Keep in mind that managing risk is as much a part of training as the practical exercises. Instructors should be very conservative when trainees are at the controls, especially when operating in less than ideal weather conditions. Trainees must not be left with the impression that mishaps are an acceptable cost of doing business. If a trainee requires repeated demonstrations by a certified coxswain, this would be the preferred option over a mishap. When conducting training, ensure you're sending the correct message.

The common theme in my recommendations to minimize mishaps is the use of risk management skills and crew communications (internal and external). Stay safe.

UTB SYSCEN WEBSITE

See page 9 of this issue

TRAINING PROGRAM (Problems)

By CWO Tom Guthlein
STANTEAM Supervisor

This article is to point out the most common problems found in training records during our visits.

The most common problem is currency maintenance. We are still finding units that have boat crewmembers that are missing their AOR requirements, which are stated in the Boat Crew Training Manual, (BCTM) COMDTINST 16114.9C. In all of these cases, the boat crewmember had a signed currency letter by the command. Remember that these are the bare minimum requirements. Boat Crew members are only required **ONE** day and **ONE** night run through their AOR as outlined in the BCTM. If there is no documentation showing that this requirement was met, then the crewmember is required to re-certify IAW the BCTM.

When we make our pre-visit calls, we let the units know what problems we find most often, such as AOR runs missing. During some of our visits, it has taken us up to 7 hours to put the unit's training program together. We work with the unit's training Petty Officer tracking down all the AOR runs that are required by the unit's instruction and the BCTM. Unit Commanders must ensure boat crews have completed their requirements for currency maintenance.

Let's review two problems we find with currency maintenance. First, tasks for boat type are not completed on all boat types. For example, towing has to be done by each boat type. Hence, a crewmember must conduct towing on each resource type (UTB, RHIB, UTL, etc) at the unit. The second problem is the currency maintenance letter is not broken down by boat type. By having your letter broken down by boat type, you can see very quickly who is current on what boat type. Remember some members can be current as a coxswain on a 41ft UTB and not current as a coxswain on a RHIB or MLB.

Let us take a few minutes to talk about non-standard boats and the qualification and certification process which must be followed. Currently, a process in the Boat Crew Qualification guides has tasks to qualify on a nonstandard boat. These tasks are generic in nature so they can be applied to any type boat. This means the units will tailor these tasks to their boat type located at their unit. Once they are signed off, they can have their oral board and check ride for certification by the command. The process is outlined in the BCTM.

The reason for bringing this up is so that the field can locate and correct problems we find from our visits. The Standardization program is a Day to Day program now and this can only be reached by sharing information.

I recently had an XPO tell me that I was digging into his training records to cover myself and find something wrong. He was way off base. I am digging through training records to ensure policy is being followed. Remember, the first thing a mishap board looks at is the training record. Let's make sure its in order. It's everyone's responsibility to ensure that training requirements are met, and properly documented.

STANDARDIZED BOAT MISHAP REPORTING

By CWO Tom Guthlein
STANTEAM Supervisor

Since the Standardized Boat Mishap reporting message has been in place, we are learning about areas of boat operations that may need improvement. The mishap messages have also been a learning tool for the field and staff people that support the boat units. This reporting format has enabled the boat community as a whole to learn from these mishaps, it also enables coxswains and "C" schools to focus on these areas.

To improve this process for standard boats, the UTB Systems Center (for 41 UTB's) and the National Motor Lifeboat School (for MLB's) will be contacting the unit for amplifying information regarding mishaps.

The sole purpose of this information is to provide a feed back loop so those lessons learned are not lost and appropriate changes may be made. After this information is gathered, any resulting changes in the works will be shared with the unit.

Remember we are all trying to learn from our mishaps and awareness is the key to success.

Search Patterns and the GPS

By BM1 Mary Watson

When the STANTEAM visits your unit, we will run nearly every coxswain through two night drills. One will be a required exercise, either a Navigation and Piloting drill or a Man Overboard Recovery drill. The second drill is an optional exercise and will usually be some type of Search Pattern. You should be reviewing all of the underway drill checklists found in the enclosures of the COAST GUARD BOAT READINESS AND STANDARDIZATION PROGRAM MANUAL, COMDTINST M16114.24A. Your unit should have a copy of this manual. You can also obtain a copy through the internet at <http://cgweb.comdt.uscg.mil/g-ocs/manuals.htm>.

The evaluator will give you up to 15 minutes to plot your navigation drill. In addition, if we are giving you a Parallel, Creeping or Trackline search, you will have an additional 30 minutes to plot that on your chart also. With the three patterns just mentioned, we will also give you a Search Pattern Summary Sheet from the C2PC program. This summary sheet will provide you with the coordinates (in degrees-minutes-seconds) and dimensions of your search area and the waypoint coordinates for each and every turn of the pattern. This summary will give you true courses, leg lengths and total distance for the pattern. Sound easy so far?

We will give you a Search Pattern summary sheet from the C2PC program.

Now read the standards (in general):

1. Pattern started at designated CSP within 100 yds.
2. Turns completed within 50 yds of their plotted positions.
3. Pattern finished within 5 minutes of the stated completion time.

The hardest part of this whole scenario is the 50-yard requirement on the turns. What is the easiest way to accomplish this? Use all of the electronics available to you.

1. Convert the coordinates on the summary sheet from degrees-minutes-seconds to degrees-minutes and hundredths of minutes so that you can enter them in the GPS.

Example: CSP on the summary sheet is listed as 37-13-15N 076-27-33W this is degrees-minutes-seconds. Convert this to 37-13.25N and 076-27.55W for the GPS. NOTE: If the chart you are using for you AOR is in seconds plot the search pattern in seconds, you only need to convert for the GPS.

2. Enter the coordinates in Sailplan 2 (Waypoint Bank) of the GPS as waypoints. It is a good habit to label all your waypoints (i.e. CSP, turn 1, turn 2, turn 3, turn 4, and end) in the waypoint bank). Hint: These drills are a team effort, train your crewmembers on how to enter the information into the GPS for you while you complete your chart work.

3. Enter a route in Sailplan 3 (Route Bank) using the waypoints entered in Sailplan 2. Here is a good place to check for major errors. The courses (remember all courses in the route bank are TRUE) and distances may not be exact, however if they are drastically off, you should recheck your work at this point.

Better to check it now when you have time than to discover your mistake underway and get an unsatisfactory evaluation for the drill.

4. After completing your Navigation and Piloting Exercise, the evaluator will verify your position. If the required drill was satisfactory, the evaluator will allow you at least 5 minutes to begin your Search Pattern. You may or may not choose to clear Sailplan 1; this is your preference. Your search pattern should be ready to go however, simply insert the pre-arranged route from step 3 into Sailplan 1.

5. Use the following to run the most accurate pattern.

- ✓ GPS Navigation screen 2 will give you Cross Track Error (XTE) to the thousandth of a nautical mile (0.001 is 2 yards, 0.026 is 52 yards). If you keep your XTE under 0.024 you will be off to a good start.
- ✓ Watch your waypoint approach distances (DIST), if you pass your turn over 50 yards you will receive an unsatisfactory evaluation.
- ✓ The best way to avoid overshooting your turn is to begin your turning maneuver prior to getting there. I have found that for a 41' UTB, allowing a second of time for each knot of speed will give you an accurate turn (i.e. traveling 15 knots, my DR time to turn is 3 minutes, I will begin my turn at 2 minutes 45 seconds).
- ✓ Use your radar. Have predetermined ranges and/or bearings for each turn. You should also have your waypoint information displayed on your radar (the "Lollypop").
- ✓ Stopwatch. Use your DR times to backup your GPS and Radar information. Keep in mind that you may have to increase/decrease speed and/or alter course due to environmental effects on your vessel.

These guidelines don't apply to every pattern, Sector and Expanding Square patterns are drifting patterns that will be run on DR time only, and CSP may be entered into the GPS.

Ask your Group SAR Controller to make up some practice search patterns for you so that you can see what they look like. When you are training, don't simulate anything. Use illumination, stop the boat and turn off the engines (go quiet), and have lookouts report everything. Keep your crew out on deck as conditions permit so that they can hear as well as see. If you train your crew right, they will help you remember the details if you forget. Waiting for the STANTEAM visit, or worse yet, an actual SAR case is not the time to learn how to use a search pattern. The mariner is depending on us to do the best job possible. ⚓

FUEL PUMP LEAKS

By LT Novotny G-SEN

During the past several months STAN Team visits were identifying an alarming number of fuel leaks coming from the fuel pumps on the Cummins VT-903 engines. An informal review of the problem identified that the majority of the leaking fuel pumps had been repaired at local Cummins dealers or Coast Guard ISCs and none of the pumps supplied from ELC stock had leaks.

ELC directs their pumps to be rebuilt in accordance with the procedures found on pages 162 through 186 in Cummins tech pub #TP-041-004. Further review indicated that there was virtually no similar guidance (i.e. repair spec) for field units to use when having their fuel pumps repaired. To ensure leak free fuel pumps all units having Cummins fuel pumps repaired shall direct the repair facility to disassemble/repair and test the fuel pumps in accordance with the procedures found on pages 162 through 186 in Cummins tech pub #TP-041-004.

Hopefully this will clear up any problems that unit's are experiencing with locally rebuilt pumps.

Bedding Compound (Sealant)

By MKC Terry Trexler

When installing fittings (i.e. anchor bracket, handrails and spanner wrench bracket) and hardware on the cabin top, some type of bedding compound (sealant) is required. If you look at the drawings for the particular gear, it shows a bedding compound as part of the bill of materials. Do not use rubber gaskets! Rubber gaskets do not conform to the unique curves of the surfaces. Rubber gaskets deteriorate and allow water to penetrate into the cabin top, which causes extensive damage.

There are several types of bedding compounds on the market. Some of the questions that you need to ask yourself when you purchase the sealant...Is the product able to withstand the marine environment? Does it remain pliable? Will I need to remove the gear in the future? Be careful of putting a permanent sealant on the cabin top. If you try to remove the particular gear from the fiberglass, it has a tendency of removing some of the gel-coat along with it.

There are a few brands out on the market and we are not in the business of promoting certain brands. But Boat Life and 3M products have been holding up well. These brands are only suggestions. Some of the prints say to use 3M brand – part no. 202 (that part number is obsolete and the alternative sealant part no. is 3M Marine Sealant 101).⚓

Signing Qualification Guides

By BMCS Tim Murdoch
Senior Instructor

The instructors at Coxswain "C" school are now "signing off" the tasks completed in each students Coxswain Qualification Guide. There are several reasons for deciding to add this benefit to our students.

Each of the Terminal Performance Objectives (TPO) outlined in the school's curriculum is written out of the Coxswain Qualification (qual) Guide, written to match a particular set of tasks in the qual guides. Upon completion of a given TPO, the student's instructor simply signs the qual guide for the task matching that particular TPO.

Our grading system at the school is a "go/no go" system. If a student cannot complete any step in a given TPO, they do not get a "go", and the task is not signed off. Each student has the opportunity to practice a given task three to four times prior to any evaluations. During evaluations, each student is given three more attempts to complete any given task.

The standards we use at the school for evaluations are the same standards the UTB STANTEAM uses to evaluate your stations. To graduate, the student must successfully complete EVERY TPO. With that established measurement, we are comfortable in "signing off" tasks in your sailor's qual guides.

I realize that the OPAREA for coxswain "C" school may not equate to the conditions at every unit. It is my opinion that there exists enough checks and balances in the qualification process to ensure a member is ready for certification. The check ride, board, and training process ensures that each candidate is fully qualified to serve as coxswain.

Upon graduation, each student can now take back with them a tangible record of their accomplishments. I would provide one caution: the tasks are completed on the UTB platform. Any "Type" tasks need to be completed for each boat type at the individual unit.

Please ensure that each student brings their coxswain qual guides to Coxswain "C" school. If you have any questions, please call me, BMCS Tim Murdoch, at 757-898-2179.

STOKES LITTER

By BMCS Rick Thornton

The new Rescue Survival Systems Manual COMDTINST M10470.10D has arrived and along with it changes to the stokes litter requirements for stations and boats. This article tries to clarify the changes and how to implement them at your unit. The required litter is the stainless steel type and can be either rigid or folding. Both styles can be used for hoisting. The litter is built-up into four configurations: hoisting (helo), surface (boat or cutter), underway replenishment personnel transfer (hi-line), and shore-side. The unit CO/OIC must make a determination as to what configuration best meets the unit's operations. If the possibility exists that the boat may use the litter to hoist, then the surface and hoisting kits should be aboard the boat. Most stations will use the shore-side, surface and/or the hoisting (helo) configuration. Each type is described below.

Shore side: This litter is used ashore only, when transportation of injured victims may occur. The litter is required to have mesh netting and four restraining straps. The new multi-color straps with buckles are the desired style, but black straps with buckles are allowed until no longer serviceable. **Use of the old style nylon Velcro straps are not authorized.**

Surface: This litter is used for transporting patients and retrieving victims from the water, from either a boat or cutter. The litter must include restraint straps (multi-color or black) with buckles, floatation kit, ballast bar, mesh backing, and manila tending lines with snap hooks. The tending lines have snap hooks so they can be removed when reconfiguring the litter for hoisting or going ashore. The floatation kit has been updated to a new style combination half-log, chest and back floatation pad. Existing older floatation kits with full logs and chest floatation pads are acceptable until no longer serviceable, at which time the new style floatation kit must be purchased. See Chapter 2 for parts and ordering information.

Hoisting: This litter is outfitted with a special hoisting sling in addition to the above configuration (minus the tending lines). It mandates the proper placement of the slings on the litter prior to hoisting to a helo. If the unit CO/OIC requires the use of this kit, then it can be carried aboard (stowage can be in a nylon bag and placed in the starboard bench seat) and installed as needed.

This litter requires load testing and correct installation of the sling kit to meet the capabilities for hoisting. See Chapter 2 for parts and installation procedures. **Extreme caution must be exercised to ensure correct installation of the hoisting sling.**

Note: You cannot combine the surface and hoisting kits and keep them stored on the litter. The hoisting sling cannot be installed with the tending lines. The hoisting sling must be removed prior to using the tending lines to retrieve a person from the water. The tending lines can be removed, if needed, prior to the litter being transported ashore.⚓

VISIT NOTES

By BMCS Rick Thornton

During our visits we are finding the following items are common discrepancies. We suggest you take a closer look at these items, as they can be detailed and easily overlooked.

- Engine casualty alarms not operational or not working properly.
- Turbo charger fire sleeve not attached correctly, has a loose clamp, or cut too short to fit at end of braided hose.
- Velcro patch missing from hood of mustang or left shoulder of survival vest.
- Float light bracket cracked, due to incorrect mounting hardware. Use flat head screws instead of pan head.
- Rudder tie-bar missing starboard reverse (left-handed) thread jam nut.

41 PMS MANUAL UPDATE

By MK1 Troy Hascher

There is a new PMS Manual (Technical Publication NO. 3430) out on the street which most of you probably have already seen and implemented into your daily routine. This manual replaces the TP 2061 and has some significant changes in it. The one that stands out the most is the fact that there is no suggested 13-week layout of PMS scheduling. This was left up to the individual units to construct a schedule to fit their Operational/Seasonal commitments and Yard availability timelines (i.e. Great Lakes winter months or down time compared to Miami's). With this new system and individual unit implementation of scheduling, deferred PMS should be a thing of the past. However as always with new programs there are oversights. Some of the Maintenance Procedure Cards (MPC) are incorrect or missing info.

A-W-5418, Underway Operational Checks, page two, under **Procedure**: the parameters are incorrect. The correct parameters are as follows:

	IDLE SPEED	CRUISING SPEED
(1) Jacket Water	165-195° F	Not to exceed 212° F (Disabling)

41' UTB Operator's Handbook, COMINST M16114.2C (Appendix G) and Coast Guard Boat Readiness and Standardization Program Manual, COMDTINST M16114.24A (Chapter 4) reflect these parameters and the manuals should be utilized to determine discrepancy categories and casualty procedures when engines are operating outside the normal ranges.

A-Q-5412, Inspect and lube hatches & windows, under **Procedure**: it states to chalk test hatch. This procedure works well with quick acting watertight (QAWT) hatches but has not always worked with the smaller scuttles onboard the 41' UTBs. What we do as the STANTEAM when checking for watertight integrity is to use the light test method. While in the compartment the inspector has someone close the scuttle from the outside. Then allows a few seconds for the eyes to adjust, inspects the scuttle sealing edge for signs of light. In our travels we have found scuttles that units have just performed a chalk test on, were not watertight.

A-S-5417, Inspect Coxswain and Radar Chairs, under **Procedure**: for coxswain chair inspection and proper operation. When checking the up and down operation, also check that the vertical stop bolt is in place (it is located under the chair between the seat cushion and the pedestal). The bolt is threaded into the top of the pedestal in the center and keeps the chair from separating from the pedestal.

When checking the operation forward and aft, ensure the chair slide stops are in place. You also want to check that the seat retract springs are in place. All these items can be found in the 41' UTB BOSS ELCINST M4441.84 (series) manual.

The navigator chair on this MPC is the old style fold up type. We have received numerous phone calls regarding the current navigator chair onboard. For now there is no replacement and you will have to repair/replace the one you have. The complete chair and parts may be purchased through Garlick at 612-459-9795 (chair P/N 48251-8 and information can be found on blue print drawing 41 UT 6700-8). The folks at ELC are working on a mini version of the coxswain chair as a replacement, which will be released as an amendment to Boat Alt 95. For now, inspect the chair closely for cracking and tightness of mounting hardware and maintain or replace as needed.

M-S-5458, Performance Tests, under **Specifications**: Jacket water temperature parameter is incorrect. It should read 165-195 ° F.

R-M-1606, Inspect Portable CO2 Extinguishers, under **Procedures**: the weight of the extinguisher is incorrect. The correct weight is a 5 pound (5#) CO2.

A-D-5410, Daily Routine, under **Procedures**, item 12: test lube oil for fuel oil dilution by visgage or falling ball method. This procedure only has to be done daily. ⚓

BOSS Items

By MK1 Troy Hascher

The **Lamarche** battery charger is obsolete. You will not be able to buy the outer casing of the charger, but you can have the inside components repaired or replaced (common electrical parts) by a local electrical facility. ELC is looking at a replacement charger to be the same style that is on the 87' WPBs. These new battery chargers are compatible with the gel cell batteries that ELC will be going to in the future. The gel cells can be used and are compatible with the present Lamarche charger. When you have to purchase new batteries you have an option as to which ones to buy. If the current batteries in the 41 UTB are good you don't have to buy gel cells until they need to be replaced.

The new **windshield wiper motors** are in BOSS stock and we have heard from the field that the jumper arm is a little different. Cleveland Ignition Co. 1-800-362-1214 (POC Suzy) has the part 621140LE25WJ for a cost of \$3.73

There will be another **bottom paint** authorized soon. It is **E Paint No Foul SN-1**. The original No Foul was black in color and failed miserably. The new bottom paint is white in color (seems to work well). This will be an option to the **Intersleek**, which is currently authorized, to use. ⚓

Boat Alteration Issues

By MK1 Troy Hascher

45- amendment to the structural reinforcement of the bilge. This Boat Alt is complete and awaiting signature, soon to be on the street. Units are to perform this amendment if signs of serious structural problems exist. The original Boat Alt installed gussets on longitudinal 1,2 and 3 out from the centerline of frames 3,4 and 5 (total of 12 gussets per frame, 36 total). It also installed gussets on Bulkhead 6 longitudinal 1 through 6 fore and aft of the bulkhead (total of 24). At Bulkhead 6 the longitudinals were cut back approx. 1 inch (where the longitudinals meet the Bulkhead fore and aft) this allows the bulkhead to flex under stress. The deck plate stringers for the wooden deck plates under the coxswain flat were also cut and angle aluminum welded to existing stringer. The section that was cut out is then bolted in place to allow for flexing of stringers (without the stringers cut the welds were cracking at bulkhead 6 and frame 5 deck support framing).

Bulkhead 2 gussets were installed in a little different configuration then Bulkhead 6, longitudinal 1 and 3 were skipped and gussets added to longitudinal 2, 4, 5 and 6 aft of the Bulkhead. There is a header plate (1/4" aluminum flat stock) added to the top of gussets at Bulkhead 2 and 6 which ties the gussets together. This header is not a continuous piece, rather several pieces. It is welded between the bulkhead vertical stiffeners to the top of each gusset and follows the plane/contour of the hull/bilge.

When installed correctly the header will look like one continuous piece. The amendment will state that if modifications are under done as stated above and show signs of structural weakening then you are to install the amendment. If you have this alteration installed already and still show signs of structural problems, you are to add additional gussets to frames 3,4 and 5 by installing gussets on longitudinal 4,5 and 6 out from centerline (total of 24 gussets per frame).

95- amendment electronics package. This Boat Alt is being amended with the **navigators chair** issue being addressed. They have a prototype chair in place and will most likely be the one that will be used. The best info we have for the field units is to repair the existing chair or replace with same type until the alteration is approved. The **60-amp equalizer** is being rewritten by MLCLant and will be included in this amendment. The **secondary VHF** is awaiting TISCOMs evaluation report; due to the extended time frame this item will be left out of this amendment and will be addressed in a separate alteration.

The current mast configuration is as follows: all the masts that are purchased new, will come without the junction box and the 1" aluminum weather head, (for the electronics and antenna wires to pass through from the crossarm mount location), you will need to install these items.

The crossarm grounding strap is attached to a welded bi-metallic boss on the navigation light shield. The lower junction box has three 90-degree stuffing tubes through the aft side of the box, and either one straight and one "Y" or two straight stuffing tubes through the bottom of the box. All electrical connections should be made inside the mast junction box (even the gammon plug connections will fit). The pilothouse aft Bulkhead can have a two or three stuffing tube configuration. The current blue print is 41 UT 6700-9 and can be accessed through NE-Tims URL address [Http://10.38.16.120:1088/NE-Tims](http://10.38.16.120:1088/NE-Tims)

100- bilge alarm amendment. This Boat Alt is in the final stages and will be on the street very soon. They are finalizing the electrical panel in the pilothouse. All other bugs have been worked out.

Non-skid Boat Alt- The prototype boats are showing outstanding durability. The issue with this Boat Alt is the die stamp. ELC is in the process of receiving bids from two other companies for prices.

The current **horn** is now obsolete and a replacement horn is in the prototype stage, it has been installed on the test boat here at the UTB Systems Center. Take extra care of the old horn for now, they have no time frame for completion of replacement.

A **shield design** to protect the **Walker Airsep** is being looked at. For now, make sure that the hatches and soft patch are sealed. There is numerous sealing materials available, use what works for your situation. Suggested source of supply for gasket material is **PHELPS** Industrial Products 1-800-876-SEAL. (Style 8001, sponge Core Hatch Packing w/ Mil-Spec Neoprene jacket 1-1/4" X 2" wide X 10 Ft.). This material works great and is being used by numerous units. You may also have to shim the soft patch to align with the deck for sealing purposes.

Raytheon has sent out a field change for the grounding of the radar unit on the pedestal. There is a secondary external grounding strap attached from the unit to the radar pedestal. The field change is to the manual (**Radar Set Model R40X/R41X AN/SPS-69**). Manual NO. (**G261404 REV. A**). Manual change notice (**1**). Pages (**FC Pedestal Modification Instructions Rev- (06/94)**) and (**Appendix B Field Change 1 Rev- (06/94)**). ⚡

C2PC

By BMCS Rick Thornton

Command and Control Personal Computer (C2PC) is the Coast Guard's newest computerized search planning tool. It replaces the former GDOC search tool. The Department of Defense and Coast Guard Operation Centers jointly use it. When a search case begins, your station will receive search information in formats that all coxswains and crews should be familiar with. During STANTEAM visits, we assess units abilities to use what they're given and put it into action, by executing these search patterns. See related *article about specific search pattern tips on page 4*.

C2PC is comprised of a standard mapping, overlay and route tools (using electronic charts) and the Coast Guards "SAR Tools" program, which features electronic search data information. It is "Windows" based and can quickly and easily make search patterns. Information provided on-scene from the SRU or OSC can be used to quickly update search information and patterns. SAR Tools can figure multiple search targets, multiple SRUs, and show this data in a graphic display on an electronic chart.

The STANTEAM carries the C2PC program on a laptop during visits, including the electronic charts of the units AOR. We lay out different searches ahead of time and then those patterns are viewed by the command on the first day of our visit to determine the best location to run them in the AOR. We then print that information and have it ready for the first night evaluation.

NOTE: During our search pattern drills the Latitude and Longitude for CSP and the turn points will be given in **seconds**, the Coxswain then converts this to hundredths of minutes to put into the GPS. Using seconds makes for the most accurate pattern possible. When the LAT/LONG is in tenths, there can be a difference in the pattern of up to 200 yards.

The effectiveness of the C2PC search program and being prepared ahead of time pays off. Right after a recent STANTEAM visit, Station Channel Islands was tasked with being the OSC and performing multiple searches when an Alaska Airlines plane crashed in their AOR. They had trained well and were able to perform their initial search mission with a complete understanding of the search information they received.

UTB SYSCEN WEBSITE

By BMCS Rick Thornton

We have finally made it to the WEB, the Coast Guard WEB or Intranet, that is. The site contains info on the UTB STAN Team, schools, the updated UTB Job Aid, a newsletter archive, parts and ordering info and links to the NE-TIMS site for prints and schematics of the UTB. The Job Aid section has colored digital pictures of certain parts of the boat. Those of you spending sleepless nights surfing the WEB at home won't be able to get there. You can only access the site from a SWS III workstation. Access the site on the CG Web as follows:

<http://rtcs10net.rtc.uscg.mil/rtcweb/utb/rtcutb.html>

Thanks to MK1 Brian McGinnis for putting it together and getting it off the ground. We hope this keeps you up to date with what's changing on the UTB. Try it out, it might save you a phone call and answer that hot question.

A PROBLEM IDENTIFIED

HYDRAULIC STEERING BOATALT

By MKC Terry Trexler

A problem with the new steering system has been identified. The mounting plate (Material Listing item #5) has failed. The angle between the hydraulic cylinder plate foundation (item #17) and the connection to the STBD rudder arm is not in alignment and caused the mounting plate to break. ELC is aware of the situation and trying to correct the problem. Refer to the message sent by ELC - DTG 211804Z MAR 00. As soon as the Amendment is issued...we will notify the field.

Units that have not installed this BOATALT should not remove the existing cable steering system until the Amendment is issued. If you have already installed the hydraulic system, visually inspect the mounting plate for signs of wear. Monitor and CHECK the system for free movement at the dock and also U/W.

NATIONAL ENSIGN #5

By BMCS Rick Thornton

The recent waiver approval to move the flag from the flagstaff to the mast has raised some questions. What's the part number for the smaller flag?

NSN 2040-00-000-000 National Ensign Flag #5

The national ensign flies directly above the CG ensign and should be flown so as not to block the upper and lower towing lights.

Towing with the UTB

By BMCS Tim Murdoch
Senior Instructor

Let me begin this discussion by telling you what it **is not**. This article is not a quick, "how to" checklist of towing. Towing a disabled vessel with the UTB can only be learned underway. Our premise here at the Systems Center is to train, maintain, and operate. This emphasis is on **train**.

We advocate training for the worst of conditions. The Boat Crewmen Qualification guide defines heavy weather as seas greater than four feet. I have no doubt that every station with a 41' UTB has experienced seas greater than four feet. We also advocate training at night. The difference between night and day operations is just that: night and day. Depth perception, visibility, and inexperience with operating at night all contribute to a potential loss of situational awareness. The limitations for a UTB are eight foot seas and winds not to exceed thirty knots. Therefore, train up to those conditions.

This article will cover basic definitions used in towing, in hopes of clarifying some finer points of towing with a UTB in any weather condition.

Upon arriving on scene with a disabled vessel, circle the vessel if at all possible to enable you to make a good risk assessment decision. Upon gathering pertinent information, and the decision has been made to tow the vessel, proceed down swell, a safe distance away from the disabled vessel, and station keep bow into the wind and seas, while the crew prepares the deck for towing.

When preparing the deck, remember that no line is faked out in the well deck, and two heaving lines are rigged to the towline, bridle, or pendant. We recommend using snap hooks at the end of the heaving lines to attach to the towing rig.

While the deck is being set up, the coxswain is going through a number of things in his/her mind. First, you must establish a **danger zone**. A good illustration of a **danger zone** is found in the Boat Crew Seamanship Manual on page 17-43, figure 17-10. The **danger zone** is simply an area surrounding the D/V that the coxswain wants to stay out of during the towing approach and station keeping evolution of towing. The size of the **danger zone** is determined by the following: prevailing weather, attitude of the D/V vessel to the seas, characteristic's of the D/V vessel, your particular abilities and experience, and your crew's abilities and experience.

After the danger zone is mentally established, the coxswain must then set up an imaginary **safe distance** that he/she wants to maintain during the approach. **Safe distance** is simply a buffer zone, or a reactionary zone (speaking in L/E terms), that you want to keep between your vessel and the D/V vessel during the approach. The **safe distance** is outside of the danger zone, but between your vessel and the D/V vessel.

Once the crew announces that they are "ready on deck", the coxswain can commence the approach. We teach the coxswain to "push the boat" ahead, into the wind and seas. The preferred approach is with the bow into the predominant force (wind or seas). During the approach, the coxswain determines the **maneuvering zone**. The **maneuvering zone** is just as its name applies: a zone that the coxswain uses to safely maneuver the UTB to maintain station. A good illustration of the **maneuvering zone** is shown in the Boat Crew Seamanship Manual, pg. 17-43, figure 17-10. I can't emphasize enough, that the **maneuvering zone** is the safest area to use when maneuvering the UTB to station keep. Stay inside of the **maneuvering zone** to adjust the boats position in order to maintain the **optimum position**. The rougher the weather, the more of the **maneuvering zone** one must use to station keep. The best "tell tale" sign to determine if your within the **maneuvering zone** is by ensuring that your towline isn't less than forty five degrees (fore or aft) out of the well deck.

The goal of the coxswain is to station keep in the **optimum position**. Again, an illustration of the **optimum position** is in the Boat Crew Seamanship Manual, pg. 17-47, figure 17-11. You have obtained the **optimum position** when the towline (or heaving lines) is tending ninety degrees out of the well deck, with the bow of the UTB into the predominant force. From this position, the UTB is most maneuverable, and passing the tow rig is safest.

The above information is to assist you in your training program. However, as already stated, towing cannot be perfected by reading an article. Use the above information as the standard, which you are attempting to achieve, and practice as often as you can. Be out there "during that dark and stormy night, when the trees are bent, and the waters white" practicing the perfect towing approach.

Share Your Ideas & Procedures

Equipment or Subject: _____

Name: _____ Rank/Title: _____

Address: _____ Phone: _____

_____ E-mail: _____
